

What is claimed is:

1. A data transfer method of transferring digital data comprising the steps of:

5 detecting the data transfer capability of a transmission channel and a transfer end;

changing the compression ratio of the digital data corresponding to the data transfer capability;

compressing the digital data by the changed compression ratio; and

10 transferring the compressed digital data to the transfer end.

2. A data transfer method according to claim 1, in which the step of changing of the compression ratio
15 involves a step of selecting whether the data should be compressed or not.

3. A data transfer method according to claim 1, in case where the digital data is image data, in which the
20 step of compressing the digital data employs the compressing method of replacing colors in a small region including a plurality of pixels to be a unit of the image data processing with at least one approximate color.

25 4. A data transfer method according to claim 3, in which the step of changing of the compression ratio is the

step of changing of the pixel number or the approximate color number included in the small region.

5. A data transfer method according to claim 3,
5 further comprising the step of setting a processing mode corresponding to a type of objective original, and

wherein the compression ratio to be changed is determined based on the processing mode.

10 6. A data transfer method according to claim 5, wherein the type of original is at least one of the "photo image", the "character image", or the "photo and character image".

15 7. A data transfer method according to claim 4, further comprising the steps of:

enlarging or reducing the image data at a specific scale;

determining the size of a small region to extract
20 the representative color on the basis of the transfer capability and the specific scale; and

extracting a plurality of representative colors from the determined small region.

25 8. An image data processing method of processing image data per unit of specific small region and approximating

colors in the small region by a plurality of representative colors, which comprising the steps of:

converting the image data to a specific resolution;

determining the size of the small region to

5 extracting a representative color corresponding to the specific resolution; and

extracting a plurality of representative colors from the determined small region.

10 9. An image data processing method of processing image data per unit of specific small region and approximating colors in the small region by a plurality of representative colors, which comprising the steps of:

15 setting a processing mode corresponding to a type of objective original;

determining the size of a small region to extract a representative color or the specific number of representative colors on the basis of the selected processing mode; and

20 extracting the specific number of representative colors from the small region on the basis of the result of the step of determining.

10. An image data processing method according to claim
25 9, wherein the processing mode is at least one of the "photo image", the "character image", or the "photo and character image"

11. An image data processing method of processing image data per unit of specific small region and approximating colors in the small region by a plurality of representative
5 colors, which comprising the steps of:

enlarging or reducing the image data at a specific scale;

determining the size of a small region to extract a representative color based on the specific scale; and

10 extracting a plurality of representative colors from the determined small region.

12. A data transfer system of transferring digital data comprising:

15 detecting means for detecting the data transfer capability of a transmission channel and a transfer end;

control means for changing the compression ratio of digital data corresponding to the data transfer capability;

20 compressing means for compressing the digital data based on the changed compression ratio; and

transferring means for transferring the compressed digital data to the transfer end.

13. A data transfer system according to claim 12,
25 wherein the control means involves selecting whether the digital data is compressed or not.

14. A data transfer system according to claim 12, in case where the digital data is image data, wherein representative color extracting means for reducing the size of the image data by replacing colors in a small region of the image data with a plurality of representative colors is
5 used as the compressing means.

15. A data transfer system according to claim 14, wherein the change of the compression ratio is executed by
10 changing the size of the small region or the approximate color number.

16. A data transfer system according to claim 14 further comprising processing mode setting means for
15 changing the processing mode corresponding to a type of objective original, wherein the change of the compression ratio is executed by changing the size of the small region or the approximate color number corresponding to the type of objective original.

20

17. A data transfer system according to claim 16, wherein the type of original is at least one of the "photo image", the "character image", or the "photo and character image".

25

18. A data transfer system according to claim 14 further comprising:

resolution converting means for enlarging or reducing the image data to a specific scale;

the control means for determining the representative color number and the size of small region to
5 extract a representative color based on the transfer capability and the specific scale; and

the representative color extracting means for extracting a plurality of representative colors from the determined small region.

10

19. An image data processor processing image data per unit of specific small region and approximating colors in the small region by a plurality of representative colors comprising:

15 converting means for converting the image data to a specific resolution;

region determining means for determining the size of a small region to extracting a representative color corresponding to the specific resolution; and

20 representative color extracting means for extracting a plurality of representative colors from the determined small region.

20. An image data processor processing image data per
25 unit of specific small region and approximating colors in the small region by a plurality of representative colors comprising:

processing mode setting means for setting a processing mode corresponding to a type of objective original;

control means for determining the size of a small
5 region to extract a representative color or the specific number of representative colors on the basis of the selected processing mode; and

representative color extracting means for extracting the specific number of representative colors
10 from the small region on the basis of the determination of the control means.

21. An image data processor according to claim 20, wherein the processing mode is at least one of the "photo
15 image", the "character image", or the "photo and character image"

22. An image data processor processing image data per unit of specific small region and approximating colors in
20 the small region by a plurality of representative colors comprising:

resolution converting means for enlarging or reducing the image data at a specific scale;

control means for determining the size of a small
25 region to extract a representative color corresponding to the specific scale; and

representative color extracting means for
extracting a plurality of representative colors from the
determined small region.